



VID23 Precaution of Pointer Assembly 指針裝配要點

Updated On : 8 Jan., 2007

Description 描述	Diagram 圖解	Specification 標準		Possible problems when over limit 超标后可能引起的问题	Remarks 备注
		Limit 極限	Unit 單位		
Maximum Push On Force 最大壓力		100 max.	N	Wire damaged/ Wire broken/ Gear damage/ Abnormal Noise 断线\ 线伤\ 齿伤\ 杂音	Proper fixing motor on PCB. Proper supporting during assembly. 电机需正确装上PCB； 电机装配时需合适的支持；
Minimum Assembly Support 最小裝配支持		Dia. 25 min.	mm	Wire damaged/ Wire broken/ Gear damage/ Abnormal Noise 断线\ 线伤\ 齿伤\ 杂音	Concrete base support should be located within +/- 1.0mm concentricity to the motor. 支持台需與電機保持+/-1.0mm同心。
Maximum Pull Out Force 最大撥出力		60 max.	N	Wire damaged/ Wire broken/ Gear damage/ Abnormal Noise/ 断线\ 线伤\ 齿伤\ 杂音	Repetitive push & pull force should also be avoided. This could deform gear and shaft. 避免重复的推/拉力，因齿轮和轴變形。
Maximum Perpendicular Force 最大橫向力		5 max.	N	Output shaft bend/ Non-concentric rotation of output shaft 轴弯\ 转动晃动	Excess perpendicular force should be avoided to bend the shaft. 需避免过大橫向力，防止轴弯。
Maximum Force Inclination 最大力傾斜度		5.0 max.	degree	Output shaft bend/ Non-concentric rotation of output shaft 轴弯\ 转动晃动	Excess inclination of applied force should be avoided to bend the shaft. 施加外力時,需避免外力过大傾斜，防止轴弯。
Maximum Pointer Straightness Deviation 最大指針垂直度偏差		0.10 max.	mm	Output shaft bend/ Non-concentric rotation of output shaft. 轴弯\ 转动晃动	Pointer straightness should be maintained within 0.1mm during assembly. Excess inclination could induce excess perpendicular force and bend the shaft. 當裝配時指針需保持直度0.1mm垂直，过量傾斜会引起过量橫力，引至轴弯。
Maximum Assembly Speed 最高裝配速度		2 max.	mm/sec	Gear damage/ Gear & shaft deform 齿伤\ 齿轮与指針變形	Excess assembly speed could induce excess force on gears. 裝配速度太快会令齿轮受力过大。
Maximum External Torque 最大外加扭力		40 max.	mNm	Gear damage/ Gear & shaft deform / Stopper damage (360 Degree Rotate) 齿伤\ 齿轮与指針轴變形\ 限位受伤	Excess external torque (>25 mNm) applied on shaft would damage stopper, gear and shaft. 过量外加扭力，限位,齿轮和指針轴会被弄伤。 Repetitive external torque, even less than 25mNm, could also induce gears and shaft deformation, it should be avoided. 避免重复的外加扭力，即使小于25mNm，因齿轮和指針轴可能被變形,必須避免。 Zero reset should be done before assembly, then pointer is assembled while pointing to zero. Zero reset manually should be avoided. 裝配前需先回零，指针对零位表上,需避免手动回零。
Maximum Imposed Acceleration 最高外加加速率		800 max.	rad/s ²	Gear damage 齿伤	Excessive imposed acceleration would induce excessive force on gears, it must be avoided. 过高外加加速率，能引起齿轮上產生过大應力，必須避免。
Maximum Number of Pointer Insertion 最多指針裝配次數		1 max.	time	Pointer loose out from pointer shaft / Pointer loose out from pointer shaft when temperature changes 指針由指針軸脫落/ 指針在溫度改變時由指針軸脫落	Repetitive assembly and disassembly pointer would cause pointer shaft surface wearing. It induce loose matching between pointer and pointer shaft. 重覆裝配指針於指針軸上,會引致指針軸表面磨損. 這引致指針與指針軸配合鬆。